**Hussam Elddin Nabieh Khaswneh**

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| **Cell phone** | **+962 776844853** |

# ***ACADEMIC certificates***

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| **Doctor of Philosophy in Chemical Engineering** | August 2007 |
| Western Michigan University. Department of Paper Eng. & Chemical Eng. | Kalamazoo, MI, USA |
| Dissertation title:Drying Behavior of Fractionated Fibers. Fractionation & drying process modeling, design and mathematical simulation. Improve mechanical and physical properties |

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| **Master of Science in Materials/Chemical Engineering** | August 2003 |
| Western Michigan University. Department of Materials Science and Engineering | Kalamazoo, MI, USA |
| Dissertation title:Texture and Residual Stresses of Nano-Composites |

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| **Bachelor of Science in Chemical Engineering** | February 1998 |
| Jordan University of Science & Technology. Department of Chemical Engineering | Irbid, Jordan |
| Dissertation title:Production of ethylene from methane using silver catalytic method |

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# ***Experience & Employment History***

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| **Chair , Assistant Professor** | September 2017-current |
| Al Balga Applied University | Huson, Irbid Jordan |
| Chemical Engineering Department |  |

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| **Assistant Professor** | September 2015- September 2017 |
| Al Balga Applied University | Huson, Irbid Jordan |
| Chemical Engineering Department |  |

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| **Chair , Assistant Professor** | September 2012- August 2015 |
| University of Hail | Hail, Saudi Arabia |
| Chemical Engineering Department |  |

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| **Assistant Professor** | September 2010- August 2015 |
| University of Hail | Hail, Saudi Arabia |
| Chemical Engineering Department |  |
| * Prepare and deliver lectures to students. Conduct laboratory sessions and discussion groups.
* Prepare, administer and grade examinations, laboratory assignments and reports
* Advise students on course, academic matters and career decisions
* Conduct & direct independent research programs in field of specialization and publish findings in scholarly journals or books
* Serve on faculty committees: Engineering College committee (2011-2015), chair students activity committee (2011-2012) and purchasing committee (2012-2013).
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| **Industrial Technology Consultant** | August 2009-September 2010 |
| Royal Scientific Society | Amman, Jordan |
| Knowledge sector |  |
| * Providing industrial and manufacturing consultations to local and regional chemical industries. Design equipment, evaluating equipment and process design.
* Prepare and conduct basic & advanced training courses to specialized groups
 |
|  | * Principles of X-ray and application. Amman. December 2009
* Introduction to XRF. Amman. January 2010
* Introduction to physical testing of textiles and fabrics. February 2010
* Advanced course in paint industry, formulation and rheology February 2010.
* Paints testing and characterization, paper testing, paper making, as needed
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| **Researcher** | August 2008-August 2009 |
| Royal Scientific Society | Amman, Jordan |
| Industrial Chemistry Center |  |
| * Preparation of studies and researches and analyzing and evaluation of data and results and prepare the reports
* Supervising researches and research assistants and evaluate their performance
* Supervising research, testing and measurements in the lab and field
* Construct research proposals, studies and strategic plans
* Provide consultation as required in the field of expertise
* Prepare and follow up research projects budget
* Evaluate studies and research projects as required
* Establish connections with industries and other research organizations as required.
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| **Process Engineer** | May 2007 – July 2008 |
| Pöyry (Appleton) LLC | Appleton. Wisconsin. USA |
| * development of P&ID drawings, including drafting, and database activities pertaining to the design information on the drawings.
* mass and energy balance creation for projects.
* analyzing and defining project scope, estimated cost, and technical aspects of a project in accordance with the client and pöyry specifications.
* perform field surveys in preparation for design.
* prepare or assist in the preparation of drawings, purchase specifications, schedules, operation manuals, and related details for projects.
* preparation of construction documents, such as project scope of work documents and bidding documents.
* assist in the support of field installation, checkout and start-up of mechanical equipment and piping systems.
* participate in client and project team meetings as required.
* performing administrative tasks as required
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| **Doctoral Associate** | August 2003-May 2007 |
| Western Michigan University | Kalamazoo, MI, USA |
| * Research dewatering and drying behavior of fractionated composites
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|  | * studied the drying behavior
* investigated new dewatering process based on electrophoresis
* reduced the drying energy requirements
* developed mathematical model to descript the drying behavior
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| * Research paper recycling
 |
|  | * improved the quality of secondary cellulose fibers for specific applications
* commercialize the fractionation process by introducing new products based on recycled fiber
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| * Coating formulation
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|  | * researched coating properties and application for ink jet printer
* formulate coatings for different substrates
* research conductive polymers rule in special coatings
 |
| * Methane generation project- with the national council of air and stream improvement (NCASI). Kalamazoo, MI. USA
 |
|  | * collect data and maintaining the statistical analysis for methane generation from paper mill sludge- methane generated, produced leachate properties, bod testing
 |
| * Researching electroplated Nano-composite
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|  | * develop and characterize wear resistance nano-composite electroplated coating
 |
| * Materials failure analysis
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|  | * failure analysis and prevention methods for commercial equipment
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| **Teaching Assistant** | August 2001- August 2003 |
| Western Michigan University | Kalamazoo, MI, USA |
| * Instructed undergraduate courses
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|  | * instructed chemical engineering principles, coating formulations, physical metallurgy, corrosion and failure analysis
* instructed process control lab, materials properties and polymers laboratories and physics 101 labs
* created all materials for lectures and for semester and final exams.
* helped revise curriculum and graduation requirements
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| **Quality Engineer** | February 1998- February 2000 |
| Yamoon Paints and Dyes Establishment | Irbid. Jordan |
| * Product development construction coatings formulation
 |
|  | * formulate oil based, water based paint, undercoats and filling patty
* developed special application paints: mold resistance, fire resistance, water resistance and rust resistance.
* developed cold applied asphalt-based coatings to stop leaks and prevent water damage in concrete and wood constructions
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| * Product quality assurance
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|  | * tested product according to ASTM standards
* evaluate alternative raw materials
* evaluated new raw materials for quality and usability
* cost analysis
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# ***List of Courses instructed***

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| * Plant design and economics
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| * Process Control & modeling
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| * Materials science
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| * Equipment Design
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| * Heat transfer
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| * Fluid Mechanics
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| * Stage wise operations
 |
| * Unit operation
 |
| * Thermodynamics of chemical engineers
 |
| * Chemical engineering principles
 |
| * Petroleum Engineering & Refinery
 |
| * Introduction to engineering
 |
| * Chemistry
 |
| * Physics
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***Graduate Student Thesis Committee (master degree)***

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| * External examiner in master thesis committee. “Assessment of used vegetable oils blended with Jordanian diesel as bio-diesel fuel” by student Omer Basher. University of Jordan. Chemistry department. Amman. December 2008.
 |
| * External Examiner in master thesis committee.” Clean production of dairy plants in Jordan”. By student Rana Kabegki. Princess Sumia University. Amman Jordan. Environment management department. 2009.
 |

***Funded Research Projects***

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| * Effect of process parameters on the production of CMC from recovered fibers. University of Hail. Hail Saudi Arabia. 2012. $60K. PI researcher.
 |
| * Reusability of sewage sludge “bi solids” at Al-Ekeder dumping site in clay bricks production. Projects # هـ J/1/08/2008 . Supported by ministry of higher education, Amman, Jordan. $165K. Co-researcher in
 |
| * Modification of papers tissue based on recovered fractionated fibers. Funded by Higher council for science & technology. Amman Jordan. 2009. $50K. PI researcher.
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# ***PUBLICATIONS AND PRESENTATIONS***

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| * ***Books***
 |
| * **Khasawneh, Hussam**. *Drying behavior of fractionated fibers*. Lamberts

 Publishing. Germany. December 2009. ISBN-10: 383831591X  ISBN-13: 978-3838315911 * AbuBakr, S., **Alkhasawneh, H**. The Pulp and Paper Technology *Advanced Workforce Training and Education Series*. Volume II, Chapter 5: Pressing and Drying. (2007).
* AbuBakr, S., **Alkhasawneh, H**. The Pulp and Paper Technology *Advanced Workforce Training and Education Series*. Volume II. Chapter 6B: Coating Operations. (2007).
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| * ***Referred Journal Paper***
 |
| * Hussam E. Alkhasawneh & Abdal-Kareem M.A. Dawagreh. Determination of the Optimum Saccharomyces cerevisiae Yeast Concentration in Bio-Ethanol Production by Molasses Fermentation. POLLUTION RESEARCH in the year 2018 Issue no. (3). ISSN 0257 – 8050. Accepted for publishing

 * Abdal-Kareem M.A. Dawagreh, Abdul-Malik Ebrahim Momin, Hussam E. Alkhasawneh. Enhanced Heat Transfer in Solar Air Heaters.

Asian Journal Of Microbiology, Biotechnology And Environmental Science, shall appear in 2018 (3) issue. ISSN # 0972 – 3005. Accepted for publishing * Abdal-Kareem M.A. Dawagreh, Mohammad Hailat, Hussam Alkhasawneh. Evaluation of Natural Zeolite as Sorbent Material for the Removal of Lead from Waste Water. Pollution Research. 36(4):67-74 · January 2017.
* ZayedAl-Hamamrea, Motasem Saidan, Muhanned Hararah, Khaled Rawajfeh, Hussam E.Alkhasawneh , Mohammad Al-Shannag Wastes and biomass material sustainable - renewable energy resources for Jordan, Renewable and Sustainable Energy Reviews 67 (2017)295–314
* Dawagreh, Abdallah, Ananzeh, Alkhasawneh and Hailat. “Jordanian Natural Zeolite Use as Sorbent for Removal Lead from Aqueous Solutions”. International Journal of current Research. Vol. 8, Issue, 04, pp29475-29481, April, 2016.
* Elboughdiri1, Mahjoubi, Shawabkeh, Khasawneh, Jamoussi. “Optimization of the Degradation of Hydroquinone, Resorcinol and Catechol Using Response Surface Methodology”. Advances in Chemical Engineering and Sciences, 2015, 5, 111-120
* Alkhasawneh, H., Cameron J., AbuBakr S., “The Effect of Fractionation on the Drying Behavior of Recycled Fibers”, Progress in Paper Recycling, Vol. 16, No. 2, (February 2007)
* Alkhasawneh et al., “Nanostructure and Texture of Ni and Ni/SiC Nanocomposites Coatings”, Journal of Metastables and nano-crystaline materials, Vols. 24-25 (2005).
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| * ***Conference Proceedings***
 |
| * Dania Alsaid, **Hussam Alkhasawneh** and John Cameron, “Effect of High Temperature Drying of Recycled Paper on Heat Transfer Rates and Sheet Properties”, TAPPI 8th Research Forum on Recycling, Niagara Falls (September 23-26, 2007).
* Ali Z. Fadhel, John Cameron, **Hussam Al Khasawneh** and Zaki Yusuf, “Thermogravimetric Analysis of Molten Salts' Kinetics”, AIChE Annual Meeting, Poster Session, San Francisco, CA (Nov 11-17, 2006).
* **Alkhasawneh, H**. Cameron, J. AbuBakr, S., “Drying Characteristics of Fractionated Fiber Using Thermo-gravimetric”, Analysis and Paper Drying Simulator TAPPI Engineering, Pulping Environmental Conference, Atlanta, GA (2006).
* **Alkhasawneh, H**. Cameron, J., “Effect of Fiber Fractionation on Sheet Properties and Drying Behavior”, TAPPI Engineering, Pulping Environmental Conference, Philadelphia PA, (2005).
* **Alkhasawneh** et al and others, “Nanostructure and Texture of Ni and Ni/SiC Nanocomposite Coatings”, ISMANAM2004, Sendai Japan, (August 22-26 2004).
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| * ***Professional*** ***Presentations***
 |
| * **Alkhasawneh, H**., Cameron J., AbuBakr S., “Drying of Single Layered Handsheet Made of Fractionated Fibers”, Paper Technology Foundation Annual Meeting, Kalamazoo MI (2006).
* **Alkhasawneh, H.,** Cameron J., AbuBakr S., “Drying of Single Layered Handsheet Made of Fractionated Fibers”, Paper Technology Foundation Annual meeting, Kalamazoo, MI (2005).
* **Alkhasawneh, H**., Cameron J., AbuBakr S., “Drying of Single Layered Handsheet Made of Fractionated Fibers”, Paper Technology Foundation Annual Meeting, Kalamazoo, MI (2004).
* **Alkhasawneh** *et al*., “The Effect of Texture and Residual Stresses on Wear Resistance of Nano-Composites”, STLE Annual Meeting, New York, (April 2003).
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